a foot plate of horn is provided. The authors necessarily employ arbitrary figures to record their results, but the records show impairment of the sensibility of bone, in Friedreich's ataxia, for instance, but 5 to 9 as compared with the normal, and for the legs in a case of tabes but 0 to 9. A table is given of the varying sensibility of the bones. From this table it is seen in the mid-forehead is least sensitive and the back of the hand and the sole of the foot most sensitive. The nerve lesions in which the authors have applied their tests, in addition to Friedreich's ataxia and tabes, comprise peripheral lesions, such as palsies and inflammations; in compression myelitis, in multiple sclerosis, in syringomyelia, diffuse myelitis, hematomyelia, tumor of the cervical cord, anterior poliomyelitis, spastic spinal paralysis, cerebro-spinal syphilis, tumor of the brain, hemiplegia and progressive paralysis—60 cases in all. In each case the skin sensibility is given for comparison with that of the so-called bone sensibility. The authors regard this quality of sensation—pallesthesia as they purpose to call it—of considerable clinical importance.

4. *Inferior Longitudinal Fasciculus.*—An anatomical study of the brain of two one-month-old children, two two-months-old children, and an adult after the method of Weigert-Pal. This investigator finds the primary optic fibres are the projective fibres of the occipital lobes—that they originate in the outer corpus geniculum and terminate without exception in the calcarine fissure. Their direction is centripetal. This is the fibre bundle falsely called the inferior longitudinal fasciculus by Flechsig. The formation and discussion of the secondary visual tract are also discussed.

The clear photographs accompanying the article show clearly the points raised by the investigator.

5. *Aphasia.*—To be abstracted when completed.

6. *Transverse Lesion of Spinal Cord.*—This case by Jolly is reported with necropsy. The patient was a woman, aged 42. She was under observation five years. The dissociation of sensation is given in detail with charts. Syphilis was thought to be the cause, but this was absolutely excluded at the necropsy. The photographs of sections at different levels show the normal pia and the marked changes in the cord substance. The cause was thought to be myelitis. An interesting conclusion is that a purely central spinal lesion where the pain tracts are involved may cause pain and paresthesia such as is most frequently seen when the nerve roots are involved.

7. *Cerebral Cortex of Rodents.*—This is a morphological study of the brain in the rabbit, rat, mouse and mole. The studies were made by the Nissl method only. The nine photographs give clear pictures of the authors' findings. A. F. Witmer (New York).

REVUE DE PSYCHIATRIE ET DE PSYCHOLOGIE EXPERIMENTALE

(Vol. 7, 1903, Sept.)

1. Cranial Measurements on the Living. Blin.
2. The Abnormal and Degenerated. Etienne Rabaud.
3. Note on the Measure of Tactile Sensibility in Its Relation to Cerebral Work. Raymond Mennier.

1. *Cranial Measurements.*—This article is in the main technical: confined to a description of the technic of taking cranial measurements. The author describes an instrument of his own designing—cranial campylogram—for obtaining a tracing of the several curved outlines of the skull, which is applicable to the living subject. It consists of a metallic arch and vertical arc at right angles to it, both graduated. This is fixed on a framework which is adjusted by two projections into the external auditory canals. On these graduated arcs an indicator is fastened, and at the several graduations the distance to its point resting on the head is determined.

These measurements are transferred to a specially ruled paper and the several points connected to form the outline sought.

2. *The Abnormal and Degenerates.*—The author deplores the wide and ill-defined use of the word degenerate, and notes that as now used it is applied to conditions of the greatest diversity. He would restrict the use of the term to those cases only in which the cells present a disintegration, or at least a tendency to disintegration, under the influence of trivial causes. While to those cases in which there has been an abnormal development quantitatively, or in which normal tissues have developed in an abnormal way, he would apply the term abnormal.

Among the abnormal he would distinguish microcephaly and incomplete microcephaly—idiots savants. In this class would also appear those cases of faulty development characterized by abnormal symptoms during childhood, indications of abnormal associations, and manifesting mental disequilibration. These cases later become persecuted. [Evidently original paranoia is included here.]

The degenerates, on the other hand, are actually diseased. The mental symptoms are manifestations of mental enfeeblement—inability for sustained attention, lack of fixity of purpose, changing from one occupation to another, great vanity, etc. The degenerate is not insane actually, but potentially; but is liable to become alienated under the influence of alcohol, syphilis, or, more simply, from grief.

Conditions of abnormality and degeneracy may, however, be combined. Upon an abnormal basis degeneracy may manifest itself, and so we have what have been called the superior degenerates—men of superior intelligence, men of genius who become afflicted permanently or temporarily with mental disorders.

3. *Tactile Sensibility.*—The author concludes from experiments conducted on a subject before and after cerebral work that cerebral work diminishes tactile sensibility.

William A. White (Washington, D. C.).

JOURNAL DE NEUROLOGIE

(1903. Vol. 8, No. 14.)

1. Experimental Researches on Motor Spinal Localizations. E. Brissaud and A. Bauer.

1. *Motor Spinal Localizations.*—In order to study the motor localizations in the cells of the anterior horn, the authors performed unilateral amputations of the hind limbs of tadpoles at varying periods from the time of their first appearance, until the animals had developed into frogs. The limbs were generally more or less completely reproduced and then reamputation was done, in some cases as often as three times. After the operation, at different periods running from eight days to 11 months in different cases, the animals were fixed, decalcified, embedded in paraffine, and serial sections colored by hemateine and eosin, by Van Gieson's, and by Nissl's methods, were studied. A diminution in volume of the cord on the side of the amputated limb was almost constantly found, and chromatolysis and atrophy of the cells of the anterior horn was present in very varying degree. The cells in the lumbar enlargement of the frog show a distinct arrangement into a medio-ventral and a lateral group. In amputation of the foot, the alterations affected the part of the cord between its lower end and the upper third of the segment between the tenth and the ninth lumbar roots, the cells of the lateral group being chiefly affected. In amputation of the leg below the knee, the alterations extended from the caudal end of the cord to a little above the ninth root. Up to the tenth root the whole group of cells was altered, above this,